



Texas A&M University School of Law Texas A&M Law Scholarship

Faculty Scholarship

1983

Computers and the Law

James Hambleton

David Matone

Follow this and additional works at: <https://scholarship.law.tamu.edu/facscholar>



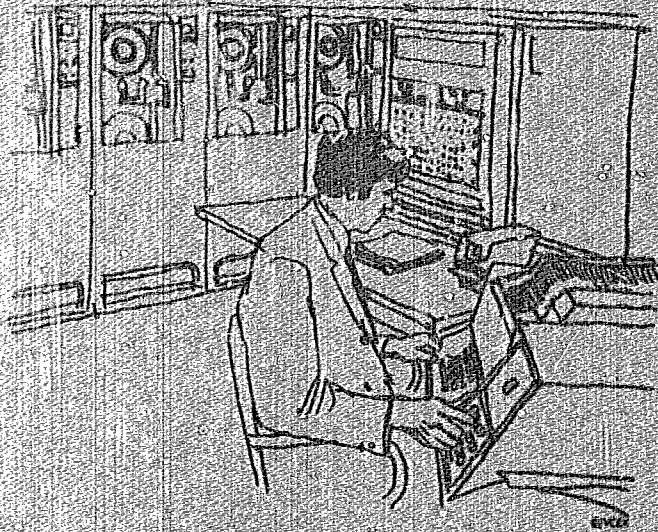
Part of the [Law Commons](#)

Recommended Citation

James Hambleton & David Matone, *Computers and the Law*, 17 Ark. Law. 28 (1983).

Available at: <https://scholarship.law.tamu.edu/facscholar/11>

This Article is brought to you for free and open access by Texas A&M Law Scholarship. It has been accepted for inclusion in Faculty Scholarship by an authorized administrator of Texas A&M Law Scholarship. For more information, please contact aretteen@law.tamu.edu.



Computers And The Law*

by James Hambleton
and David Malone

"The computer in this century is like the telephone in the last century," says Francis Musselman, a partner in New York-based Milbank, Tweed, Hadley & McCloy, quoted in last November's *American Lawyer*. "The telephone was invented in 1876," he continues, "but most law firms didn't have them until near the end of the century. Lawyers thought that because the telephone wasn't the written word, it couldn't be trusted. Also, they didn't know how the damn things worked, so they were afraid of them. I'd say that is where we were with computers five years ago, but like the telephone, it'll change."

Most lawyers still have no idea how telephones really work, but they use them furiously because they understand what they're good for: remote voice communication. Computers are good for something equally simple: remembering millions of pieces of information.

Although these electronic memories were first introduced for office management and accounting chores in law offices, they also turn out to be tremendously useful in legal research. The day will arrive when most attorneys do their legal research at a terminal beside their desk, at a considerable saving of time and with greater accuracy than presently.

The computer can manipulate information and retrieve it in ways which traditional sources of legal research cannot. Using a traditional legal research book, the attorney is tied to the indexing and abstracting which

the legal editor has used. Searching for a case on Ford Pinto crashes, where does the attorney start? Are those cases indexed under "Automobiles," "Products Liability," or "Torts?" The attorney has to second-guess the indexer.

Using the computer, the attorney is not tied to any indexing system. Rather than containing just digest paragraphs or abstracts, the computer database holds the full text of case decisions. By entering the word "Pinto," the user can find all documents which have an occurrence of that word. Some of these documents, though, may contain references to pinto ponies, or to Joe Pinto's divorce case.

Combining other words with "pinto" the searcher may locate just those cases on point. Perhaps the words "gas tank" or variations of the word "explode" would narrow the computer search enough to retrieve only relevant cases.

Through this process of combining search words, the attorney is able to create a unique index which will produce results faster and more efficiently than the printed indexes. Each search term is an index word; any word which has appeared in a case can be used as a search key to retrieve that particular case. For example, if the only fact which an attorney can remember about a North Arkansas case is that the judge talked about land suitable only for mountain goats and agile sheep, entering words "goats" and "sheep" would be the best search request. The computer could do in a few seconds a search which would take hours to do manually with traditional search tools if it could be done at all. Currently two computer-assisted legal research systems are marketed nationally. The first,

James Hambleton is Director of the State Law Library of Texas, Austin, Texas.

David Malone is Assistant Dean of the University of Arkansas School of Law, Fayetteville, Arkansas.

LEXIS, a service of Mead Data Central of Mansfield, Ohio, was introduced to the public in 1973. The University of Arkansas Law School began its subscription to LEXIS in October 1979. Westlaw, the second major computer-assisted legal research service, became generally available in 1975. The West Publishing Company, one of the largest law book publishers in the country, markets Westlaw. While many law schools have been forced by budget limitations to choose one system over the other, Arkansas has been fortunate in being able to acquire both. Westlaw was installed in January of 1980.

Both the LEXIS and the Westlaw databases contain the full text of cases, codes, and administrative material. The documents in LEXIS are arranged into libraries by jurisdiction, then subdivided into files by particular courts or a combination of courts. For example, the "GENFED" library contains "general federal" documents which are divided into, among others, a "SUP" file for U.S. Supreme Court cases, a "SUPCIR" file for U.S. Supreme Court and U.S. Courts of Appeals cases, and a "CIR" file for just the U.S. Courts of Appeals cases. Other documents in the LEXIS database include decisions from all fifty states, federal administrative law material in securities and tax, and separate labor,

*Adapted from material originally published by *Townes Hall Notes*, Summer, 1981 by James Hambleton.

communications, and patents materials.

The Westlaw database contains the same type of documents as LEXIS does. Additionally, Westlaw includes headnotes, or edited summaries of the points of law in each case. The documents in Westlaw are arranged by "reporters," corresponding to the printed volumes of reported court cases published by West. Arkansas court cases, then, are in the "SW" file, since these cases are reported in the Southwestern Reporter. Specialized files, such as one for federal tax, contain both court decisions and administrative law materials.

Both LEXIS and Westlaw have a similar hardware configuration. A typewriter keyboard is joined to a cathode ray tube, which looks like a small T.V. set. Connection to the database itself is made by dialing an access number on a telephone next to the terminal. This dataphone is hooked to a modem which translates the signals into something both the main computer and the terminal can understand.

When connection is made, the searcher enters an identification number, which is used for billing purposes. Law schools are allowed special usage contracts which are comparatively inexpensive. This contract dictates, however, that the terminals can be used only by bona fide law students and faculty in connection with law school course work. Understandably, students may not use either system when a fee-paying client is involved.

Once "on-line," the user selects a library and file. Now the search begins. Using the keyboard, the searcher types on the screen the request, then transmits it to the computer. Both LEXIS and Westlaw are interactive, which means that the computer and the user "talk" back and forth until the user is satisfied with the information retrieved. After the computer processes the search request, it responds with the documents that satisfy that request.

Once retrieved, documents can be displayed in full text, by citation, or by key-word-in-context (KWIC). In the KWIC format, LEXIS displays the search words highlighted, surrounded by twenty words on either side. The corresponding format in Westlaw, the "term" mode, highlights the search word as it appears in a full screen of text.

The search itself can be made up of a single word or a combination of

words. A "word" to the computer is any unbroken string of alphabetic or numeric characters. Both "C3PO" and "court" are words which the computer could process.

The searcher combines words or phrases using "connectors" between them. For example, the search "cat and dog" will retrieve any document in which both the word "cat" and the word "dog" appear. If the search "cat and dog" is entered, not only will documents with both words be located, but all documents containing only one word or the other. This "Boolean" logic is the basis for the syntax of both LEXIS and Westlaw.

Besides locating a single word, phrase or combination of words and phrases in documents, each system can also locate words or phrases in close proximity to each other. In LEXIS, the search "trial w/3 jury" demands that the word "trial" occurs within a certain number of words of the word "jury." Cases which discuss a "jury trial" or "trial by jury" will both be retrieved. A similar search in Westlaw requires that the two words be in the same sentence. By using these and other connectors, the searcher may tailor a request to retrieve just those cases needed.

If LEXIS and Westlaw simply found cases with a certain configuration of words which occurred at random in a document, that alone would be helpful. Each system, however, has the additional capability of retrieving documents which have words located in a specific part or segment of the document. For example, a searcher may request that a case containing the word "black" be retrieved only if that word occurs in the part of the document which indicates who wrote the opinion. Thus only opinions written by Justice Black will be retrieved, rather than any case dealing with a black cat.

This capability makes computer-assisted legal research much more flexible than manual research. The searcher may fashion a request to find cases after 1977 written by Judge Hickman involving implied warranties. Locating this kind of information could be very useful to an attorney about to argue a particular issue before a judge, and it is the kind of information almost impossible to retrieve using manual research aids. To find that case where the woman slipped on the banana peel in the store, where the tarantula bit the produce clerk, where the bottle of Coke exploded, the computer can be of in-

valuable help. But what are its disadvantages?

One of the problems in using computer-based legal research is the literalness of the machine. People tend to think in concepts, which they then clothe in words. All the machine can understand is words; it can only match strings of alphabetic or numeric characters at an incredibly high speed. If the searcher looks for all cases on "jurisdiction," only the six with that misspelling of the word will be retrieved. If the document has typos when it is put into the system, the typos remain and a search with the correct spelling of the word may miss the case.

Although spelling may seem minor, it can be a real problem in law. The name "M'Naghten" is spelled four different ways on one page of one court opinion. The redundancy in court opinion helps. A word misspelled in one sentence of the document may be spelled correctly somewhere else, so the document would ultimately be located. But doing a search by jurisdiction for a Texas case where, in the caption, the state is spelled "Taxes" will mean that case is forever lost. The partial solution is, of course, to list common misspellings and alternative search words. Never search for "arctic" without also looking for "artic."

Since the computer is word-based rather than concept-based, the searcher must be extremely careful what words are chosen for the search. Law students are taught to think in "index terms" or, in common parlance, taught to think "like a lawyer." Yet if the searcher couches the request in broad index terms, rather than in specific fact or search words, the computer will not find relevant cases. Judges write opinions using descriptive words; they do not use index terms. An opinion does not say "This is a torts case," but rather, "Plaintiff was standing on a train platform when she was hit by falling scales." The word "tort" would not retrieve this case, but the words "platform" and "scales" would.

Thinking like a lawyer will not help unless the user always keeps in mind how the machine operates. Traditional research requires an analysis of facts to isolate the underlying legal issues. When the points of law underlying the facts are determined, the attorney proceeds to an index or digest which is arranged by those points of law. The attorney using the computer must also analyze the

continued on page 30

facts, but the search must be entered as a combination of fact words and specifically defined legal concept words.

English is a very imprecise language. Even when the word is spelled correctly, it may have a dozen different shades of meaning, and the searcher is only interested in one of those dozen. If the user inputs "constitutional" hoping to retrieve cases discussing a particular concept of constitutional law, a retrieved case may only refer to an older gentleman mugged while taking his constitutional. Often for esoteric concepts, adding more search terms does not help. Computers are most effective when the search words have a narrowly defined meaning, or where they describe a particular fact situation.

One of the advantages of using the Westlaw database is that an attorney may search by point of law, using the West headnotes, and combine with this "concept" search a few fact words which will pull out of the database only cases with similar facts. For example, all the headnotes under an "Injunction" key number describe what is a legally

necessary showing for an injunction to be issued. None of these headnotes, however, indicate the facts in the case. By combining a word such as "abortion" with the headnote for injunction, the computer will retrieve injunction cases that deal with abortions.

Learning how to use computer assisted legal research systems effectively is becoming increasingly important for law students. Employers are looking at whether candidates have had exposure to computer-based legal research.

Arkansas students have a remarkable opportunity which few other law students have: the chance to familiarize themselves with both LEXIS and Westlaw. Instruction in computer-assisted research has been integrated into the first year legal research and writing program at Arkansas.

There are two basic aspects of learning how to use any computer-based system. First, the student must master the mechanical operation of the terminal. This includes what keys to push to select a database, enter a search request, and view the retrieved documents. Second, the student must learn the special syntax of each system. This includes search logic, search strate-

gies, specialized segment or field searches and all the connectors which are used to link words together into more complex search requests.

Both West Publishing and Mead Data have supplied various training aids to help students learn both mechanical operation and search syntax. Westlaw has two tutorial courses online which do just that. A "terminal training" course and a "Westlaw training" course can be used by students to become familiar with these operations. Mead has prepared for free distribution a LEXIS handbook which discusses in detail use of the system. Videotapes are available which also help in demonstrating searching techniques. To introduce students to the terminal, Mead has developed a cassette tape "simulator" which directs the student through a sample problem. By the end of this problem, the student has used all the keys on the keyboard.

Using these vendor-supplied aids simplifies training law students to use computer-assisted legal research. The major problem is logistical: exactly how to give two hundred first year students fair and equal access to only two terminals, while upper class students are

continued on page 31

Announcing . . .

The Arkansas Legislative Report

The Best Source of Information on The Arkansas General Assembly

For 60 days every two years, the Arkansas General Assembly meets to pass the laws by which we are governed and to appropriate funds for operation of the state government.

Hundreds of bills, scores of amendments and dozens of resolutions go across the members' desks. Knowing what is going on is an increasingly difficult task.

The Arkansas Legislative Report is your best means of keeping up with what the lawmakers are doing. It's the most authoritative source of information on the actions of the legislature.

Lobbyists, news organizations, state agencies, attorneys, professional and trade associations, local governments—anyone who needs to stay abreast of the proceedings of the General Assembly will benefit from *The Arkansas Legislative Report*.

The Arkansas Legislative Report consists of:

- ★ A summary of each bill and resolution introduced.
- ★ The status of each bill and resolution—updated daily—to show the progress through committee and floor action right on to signature or veto by the Governor.
- ★ A summary each day of actions in the Senate and the House of Representatives. A report on every vote taken.
- ★ A simple index that helps you find legislation on any subject—quickly and easily.
- ★ A roster of the membership of the General Assembly with biographical information, photographs, committee assignments and other valuable information to help you.
- ★ A looseleaf binder and dividers to help you keep your information ready to use at any time.

In addition, subscribers to *The Arkansas Legislative Report* are entitled to copies of up to 100 bills free of charge. After 100 bills, there is a charge of 25 cents for each bill requested.

Service will begin in November, when members of the General Assembly start prefiling bills for the 1983 session.

The cost of *The Arkansas Legislative Report* is \$450 for the 60-day session. For extended and special sessions, the cost is \$10 a day.

The Arkansas Legislative Report is edited by Ken Parker, a well known Arkansas newsmen and public relations counselor. He and an outstanding staff of reporters and editors will keep you up to date on what's happening in the General Assembly. Ask your Senator or Representative about Ken Parker. They know his ability and integrity.

Legislative Reports, Inc.
P.O. Box 1304
Little Rock, AR 72203

Send us more information on *The Arkansas Legislative Report*

Name _____

Address _____



YOUNG LAWYERS' UPDATE

By Frank C. Elcan, II
YLS Chairman



It was very gratifying to be representing the Young Lawyers' Section of the Arkansas Bar Association at the annual meeting of the American Bar Association held in San Francisco. The section was a double winner in the 1981-1982 Award of Achievement competition sponsored by the Young Lawyers' Division of the American Bar Association. The section received a first place award in the comprehensive application, division 1-C for state bar associations with less than 3,000 young lawyers. We were also awarded first place in the single project, service to the bar, for the **Arkansas Guide to Statutes of Limitations** handbook, which was published last year. The two first place awards are even more significant in view of the fact that only two applications are allowed to be submitted by an affiliated organization. These awards reflect the fine job that Harry Truman Moore, the executive council,

and various committee chairmen did during the past bar year.

Our section was further honored to have Patrick Hayes of North Little Rock as the presiding Delegate Assembly Speaker at the San Francisco meeting. Pat relinquished the chair at the conclusion of the Delegate Assembly, and was presented a certificate of recognition by our section for the fine work he has done on behalf of Arkansas Young Lawyers in the Young Lawyers' Division of the American Bar Association.

The section had a well-attended and enthusiastic executive council meeting in conjunction with the Fall Legal Institute held in Fayetteville in September. Sixteen executive council members and committee chairmen were present at the meeting. Status reports were presented on the projects underway.

Walter Paulson of Little Rock did a fine job of organizing a reception and brunch for the Mississippi Young

Lawyers in conjunction with the Arkansas-Ole Miss Football Game in Little Rock.

Terry Paulson of Little Rock and Robert Ridgeway of Hot Springs coordinated the activities in conjunction with swearing in the new admittees to the Arkansas Bar. The swearing-in ceremony was held on Monday, September 27. Immediately after the formal ceremony, presentations were made to the admittees by various bar groups and organizations. A reception was held at the Arkansas Bar Center after the ceremonies were completed.

The annual Practice Skills Course was held on October 14 and 15 in Little Rock. Bob Lambert of Springdale and Donald Bacon of Little Rock presided as co-chairmen of the seminar. An excellent group of speakers was provided to acquaint new lawyers with the "nuts and bolts" aspects general law practice.

Plans are now underway for the section to sponsor an Affiliate Outreach/Continuing Legal Education meeting in conjunction with the horse racing season in Hot Springs next spring. The meeting will consist of two one-half day sessions, one dealing with implementation and ideas for public service projects and the second session dealing with a particular aspect of trial practice. Young lawyers from all of our bordering states will be invited to participate in this two-day seminar. In addition, a block of rooms has been reserved at the Ramada Inn in Hot Springs and a block of two hundred seats has been reserved at Oaklawn Park on both days of the seminar for those who wish to partake of the "Sport of Kings."

On behalf of the section, I want to congratulate all of the new admittees to the Arkansas Bar. I hope that each will become an active member of the Arkansas Bar Association, and particularly the Young Lawyers' Section.

Computers And The Law

continued from page 30

also competing for terminal time.

Today's students are very receptive to experimenting with new technology. A general familiarity with typewriter keyboards, machines, and television screens make students more comfortable in learning to use the computer and less intimidated by its complexities. The next generation of law students, weaned on TV-set electronic games, may take to computer-based research databases more readily than to the printed research tools.

Many thousands of practicing at-

torneys currently use computer-assisted legal research. In the near future computer terminals will be as common in law offices as the ubiquitous sets of court reporters. In New York, Chicago, Dallas, and Houston some of the larger law firms have already leased up to a hundred terminals for use in individual attorney's offices. Giving students the opportunity to be trained on both LEXIS and Westlaw assures Arkansas graduates of an education which well prepares them for the future practice of law.

